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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,319	09/16/2003	Alexander Vincent Danilo	00169.002728.	9258

5514 7590 01/21/2011

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EXAMINER	
DHINGRA, PAWANDEEP	
ART UNIT	PAPER NUMBER
2625	
MAIL DATE	DELIVERY MODE
01/21/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/662,319	DANILO, ALEXANDER VINCENT	
	Examiner	Art Unit	
	PAWANDEEP S. DHINGRA	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17,19 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17,19 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- This action is responsive to the following communication: Request for Continued Examination (RCE) filed on 11/22/2010.
- Claims 17 and 19-20 are pending.

Response to Arguments

Applicant's amendments, filed 11/22/2010 have been entered and fully considered. However, Applicant's arguments filed 11/22/2010 have been fully considered but they are not persuasive.

Applicant argues that none of the cited references show the newly amended features.

In reply, examiner asserts that new ground(s) of rejection have been made in view of Okubo and combination of Moore with Koyanagi and Okubo has been shown to sufficiently teach those argued limitation, please see rejection(s) below.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/22/2010 has been entered.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 20 recites a computer readable medium, but neither the claim nor the disclosure limit the medium to the statutory embodiments. Such recitation could be reasonably understood to include computer readable media that cover signals per se, which the USPTO must reject under 35 U.S.C. § 101 as covering both non-statutory subject matter and statutory subject matter. In an effort to assist the Applicant in overcoming a rejection or potential rejection under 35 U.S.C. § 101 in this situation, the examiner suggests the following approach: a claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim.

Examiner Notes

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the

references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

   (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 17 and 19-20 are rejected under 35 U.S.C. 103 as being unpatentable over Moore, US 2002/0015039 in view of Koyanagi, JP 2000-013601 further in view of Hiroshi Okubo, JP 11-073516.

Re claim 17, Moore discloses a computer-implemented method of rendering an image (see title), comprising a plurality of overlapping graphic objects (see figure 8, it has two overlapping objects blue and red, paragraphs 62-63), the computer comprising a processor configured to implement the method and a computer readable storage medium to store the plurality of overlapping graphic objects (see figs. 1-2 with text), said method comprising the steps of: generating a list of input edges in accordance with a plurality of boundaries of the plurality of overlapping graphic objects, wherein some of the input edges are overlapping (see fig. 11, paragraphs 62-64) (also see paragraphs 67-79); producing a list of non-intersecting edges from the list of input edges (see figs. 8-13 with text, note that there are two objects, red 90, and blue 80 (fig. 8) which overlap

and thus three non-intersecting edges for areas 92, 84; 82, 96, 94; and 98, 86 (fig. 8) form the input overlapping edges are produced); converting the produced list of non-intersecting edges into an active edges (see figs. 2, 8-10 with text); rendering active edges into a plurality of sequential pixels (see paragraphs 54-55, 67, 82-84); wherein the list of non-intersecting edges defines a plurality of boundaries of a plurality of non-overlapping graphic objects, said plurality of non-overlapping graphic objects being visually equivalent to the plurality of overlapping graphic objects and a color for each of the plurality of non-overlapping graphic objects (see figs. 6, 8-9 with text) (also see figs. 10-13 with text).

Moore fails to explicitly disclose producing a list of edges from the list of input edges on a per-scan-line basis; converting non-intersecting edges into an active edge list; rendering the active edge list into a plurality of pixels; defining a plurality of boundaries of a plurality of non-overlapping graphic objects at the same priority level; at least one non-intersecting edge replaces a plurality of overlapping input edges, the non-intersecting edge being shared by more than one of the non-overlapping graphic objects.

However, Koyanagi teaches producing a list of edges from the list of input edges on a per-scan-line basis (see abstract, paragraphs 33-34, 43); rendering the image based on the produced list of edges; non-intersecting edges defines a plurality of boundaries of a plurality of non-overlapping graphic objects at the same priority level, wherein non-intersecting edges form a plurality of boundaries of a plurality of non-overlapping graphic objects that are visually equivalent to plurality of overlapping

graphic objects (see figs. 4, 9, 11-12 with text); at least one non-intersecting edge replaces a plurality of overlapping input edges, non-intersecting edge being shared by more than one of the non-overlapping graphic objects (see figs. 4, 9, 11-12 with text).

Okubo teaches converting non-intersecting edges into an active edge list (see figs. 2-3, paragraphs 49-56); rendering active edge list into a plurality of pixels (see figs. 2-3, paragraphs 49-56).

Therefore, it would have been advantageous to modify the method of rendering graphic objects as disclosed by Moore to include the overlapping graphic processing and edge generating techniques as taught by Koyanagi and overlapping graphic processing techniques as taught by Okubo for the benefit of increasing printing speed and reducing memory consumption as taught by Koyanagi in paragraph 101 and for increasing processing speed and reducing memory consumption as taught by Okubo in abstract. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to combine the system of Moore with the system of Koyanagi and Okubo to reach the aforementioned advantage.

Re Claim 19, Moore discloses an apparatus for rendering an image (rendering apparatus, fig. 3, paragraph 23) comprising a plurality of overlapping graphic objects (see figure 8, it has two overlapping objects blue and red, paragraphs 62-63), said apparatus comprising: generating means (display list generation 12, fig. 2, "the display list generation 12 is preferably implemented as a software module executing on the host processor 2", paragraph 66) for generating a list of input edges in accordance with a plurality of boundaries of the plurality of overlapping graphic objects, wherein some of

the input edges are overlapping (see fig. 11, paragraphs 62-64) (also see paragraphs 67-79); producing a list of non-intersecting edges from the list of input edges (see figs. 8-13 with text, note that there are two objects, red 90, and blue 80 (fig. 8) which overlap and thus three non-intersecting edges for areas 92, 84; 82, 96, 94; and 98, 86 (fig. 8) form the input overlapping edges are produced); converting means for converting the produced list of non-intersecting edges into an active edges (see figs. 2, 8-10 with text); rendering means for rendering active edges into a plurality of sequential pixels (see paragraphs 54-55, 67, 82-84); wherein the list of non-intersecting edges defines a plurality of boundaries of a plurality of non-overlapping graphic objects said plurality of non-overlapping graphic objects being visually equivalent to the plurality of overlapping graphic objects and a color for each of the plurality of non-overlapping graphic objects (see figs. 6, 8-9 with text) (also see figs. 10-13 with text).

Koyanagi teaches producing means for producing a list of edges from the list of input edges on a per-scan-line basis (see abstract, paragraphs 33-34, 43) (also see figs. 4, 9, 11-12, 16-17 with text); and rendering means for rendering the image based on the produced list of edges; non-intersecting edges defines a plurality of boundaries of a plurality of non-overlapping graphic objects at the same priority level, wherein non-intersecting edges form a plurality of boundaries of a plurality of non-overlapping graphic objects that are visually equivalent to plurality of overlapping graphic objects (see figs. 4, 9, 11-12 with text); at least one non-intersecting edge replaces a plurality of overlapping input edges, non-intersecting edge being shared by more than one of the non-overlapping graphic objects (see figs. 4, 9, 11-12 with text).

Okubo teaches converting non-intersecting edges into an active edge list (see figs. 2-3, paragraphs 49-56); rendering active edge list into a plurality of pixels (see figs. 2-3, paragraphs 49-56).

Re Claim 20, claim 20 recites identical features, as claim 17, except claim 20 merely deals with executing the method of claim 17 on a computer. Thus, arguments made for claim 17 are applicable for claim 20.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAWANDEEP S. DHINGRA whose telephone number is (571)270-1231. The examiner can normally be reached on M-F, 9:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. D./
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625